

## IN THE CLAIMS

Please cancel claims 37, 38, 41, 45, 46, 63, 64 and 67 without prejudice or disclaimer.

This listing of claims will replace all prior versions, and listings, of claims in the application.

### **Listing of Claims:**

Claims 1-38 (cancelled)

Claim 39 (previously presented) A network switch comprising:

- a CPU;
  - a memory system having circuitry operable to attach to the CPU;
  - a switch fabric system having circuitry operable to attach to the CPU;
  - a port controller having circuitry operable to attach to the switch fabric system;
  - a software application operable to execute on the CPU;
  - a Forwarding Database Distribution Library (FDDL) system operable to execute on the CPU;
  - a switch device driver operable to execute on the CPU; and
  - a second software application operable to execute on the CPU, wherein the second software application communicates with the FDDL system;
- wherein the software application is operable to communicate with the FDDL system, the FDDL system is operable to communicate with the switch device driver, and the switch device driver is operable to communicate with the switch fabric;
- wherein the FDDL system comprises:
- a base FDDL system;
  - a software application tower FDDL system; and
  - a second software application tower FDDL system
- wherein the base FDDL system communicates with the switch device driver, the software application communicates with the software application tower FDDL system, the second software application communicates with the second

software application tower FDDL system, and the base FDDL system communicates with the software application tower FDDL system and the second software application tower FDDL system.

Claims 40-41 (cancelled)

Claim 42 (previously presented) A network switch comprising:

- a CPU;
- a memory system having circuitry operable to attach to the CPU;
- a switch fabric system having circuitry operable to attach to the CPU;
- a port controller having circuitry operable to attach to the switch fabric system;
- a software application operable to execute on the CPU;
- a Forwarding Database Distribution Library (FDDL) system operable to execute on the CPU;
- a switch device driver operable to execute on the CPU;
- an independent software application operable to execute on the CPU;
- an independent software application shim operable to execute on the CPU;
- wherein the software application is operable to communicate with the FDDL system, the FDDL system is operable to communicate with the switch device driver, and the switch device driver is operable to communicate with the switch fabric;
- wherein the independent software application communicates with the independent software application shim and the independent software application shim communicates with the switch device driver; and
- wherein the FDDL system comprises:
  - a base FDDL system;
  - a software application tower FDDL system; and
  - a second software application tower FDDL system
- wherein the base FDDL system communicates with the switch device driver, the software application communicates with the software application tower FDDL system, the second software application communicates with the second software application tower FDDL system, and the base FDDL system communicates

with the software application tower FDDL system and the second software application tower FDDL system.

Claims 43-46 (cancelled)

Claim 47 (previously presented) A network switch comprising:

- a CPU;
  - a memory system having circuitry operable to attach to the CPU;
  - a switch fabric system having circuitry operable to attach to the CPU;
  - a port controller having circuitry operable to attach to the switch fabric system;
  - a protocol means for providing a service to a network system;
  - a Forwarding Database Distribution Library (FDDL) means for communicating with the protocol means;
  - a switch device driver means for communicating with the FDDL means and the port controller; and
  - a second protocol means for providing a second service to the network system, wherein the FDDL means communicates with the second protocol means;
- wherein the FDDL means comprises:
- a base FDDL means for communicating with the switch device driver means;
  - a protocol tower FDDL means for communicating with the protocol means and the base FDDL means; and
  - a second protocol tower FDDL means for communicating with a second protocol means and the base FDDL means.

Claims 48-49 (cancelled)

Claim 50 (previously presented) A network switch comprising:

- a CPU;
- a memory system having circuitry operable to attach to the CPU;
- a switch fabric system having circuitry operable to attach to the CPU;

a port controller having circuitry operable to attach to the switch fabric system;

a protocol means for providing a service to a network system;

a Forwarding Database Distribution Library (FDDL) means for communicating with the protocol means;

a switch device driver means for communicating with the FDDL means and the port controller;

an independent protocol means for providing an independent service to the network system; and

an independent protocol shim for communicating with the independent protocol means and the switch device driver means;

wherein the FDDL means comprises:

a base FDDL means for communicating with the switch device driver means;

a protocol tower FDDL means for communicating with the protocol means and the base FDDL means; and

a second protocol tower FDDL means for communicating with the second protocol means and the base FDDL means.

Claims 51-52 (cancelled)

Claim 53 (previously presented) A method of providing communications over a network system utilizing a first protocol and a second protocol, the method comprising the steps of:

receiving information at a port controller in a first protocol from a first node machine;

communicating the information from the port controller to a switch fabric;

communicating the information from the switch fabric to a switch device driver within an operating system;

communicating the information from the switch device driver to a Forwarding Database Distribution Library (FDDL);

communicating the information from the FDDL to a first protocol client;

receiving additional information at a port controller in a second protocol from a first node machine;

communicating the additional information from the port controller to a switch fabric;

communicating the additional information from the switch fabric to a switch device driver within an operating system;

communicating the additional information from the switch device driver to a Forwarding Database Distribution Library (FDDL);

communicating the additional information from the FDDL to a second protocol client;

wherein all communicating between the switch device driver to the FDDL is done through a switch services API; and

all communicating from the FDDL to the first protocol client and the second protocol client is done through an FDDL API.

Claim 54 (previously presented) A method of providing communications over a network system utilizing a first protocol and a second protocol, the method comprising the steps of:

receiving information at a port controller in a first protocol from a first node machine;

communicating the information from the port controller to a switch fabric;

communicating the information from the switch fabric to a switch device driver within an operating system;

communicating the information from the switch device driver to a Forwarding Database Distribution Library (FDDL);

communicating the information from the FDDL to a first protocol client;

receiving additional information at a port controller in a second protocol from a first node machine;

communicating the additional information from the port controller to a switch fabric;

communicating the additional information from the switch fabric to a switch device driver within an operating system;

communicating the additional information from the switch device driver to a Forwarding Database Distribution Library (FDDL);

communicating the additional information from the FDDL to a second protocol client;

defining a switch services API for communication between the switch device driver; and

defining an FDDL API for communication between the first protocol client and the FDDL.

Claim 55 (previously presented) A method of providing communications over a network system utilizing a first protocol and a second protocol, the method comprising the steps of:

receiving information at a port controller in a first protocol from a first node machine;

communicating the information from the port controller to a switch fabric;

communicating the information from the switch fabric to a switch device driver within an operating system;

communicating the information from the switch device driver to a Forwarding Database Distribution Library (FDDL);

communicating the information from the FDDL to a first protocol client;

receiving additional information at a port controller in a second protocol from a first node machine;

communicating the additional information from the port controller to a switch fabric;

communicating the additional information from the switch fabric to a switch device driver within an operating system;

communicating the additional information from the switch device driver to a Forwarding Database Distribution Library (FDDL);

communicating the additional information from the FDDL to a second protocol client;

receiving the information from the switch device driver at an FDDL base within the FDDL;

passing the information from the FDDL base to a first protocol FDDL tower within the FDDL; and

sending the information from the first protocol FDDL tower to the first protocol client.

Claims 56-57 (cancelled)

Claim 58 (previously presented) A computer-readable medium having stored thereon computer executable instructions for performing the steps comprising:

receiving information at a port controller in a first protocol from a first node machine;

communicating the information from the port controller to a switch fabric;

communicating the information from the switch fabric to a switch device driver within an operating system;

communicating the information from the switch device driver to a Forwarding Database Distribution Library (FDDL);

communicating the information from the FDDL to a first protocol client;

receiving additional information at a port controller in a second protocol from a first node machine;

communicating the additional information from the port controller to a switch fabric;

communicating the additional information from the switch fabric to a switch device driver within an operating system;

communicating the additional information from the switch device driver to a Forwarding Database Distribution Library (FDDL);

communicating the additional information from the FDDL to a second protocol client;

wherein all communicating between the switch device driver to the FDDL is done through a switch services API; and

all communicating from the FDDL to the first protocol client and the second protocol client is done through an FDDL API.

Claim 59 (previously presented) A computer-readable medium having stored thereon computer executable instructions for performing the steps comprising:

- receiving information at a port controller in a first protocol from a first node machine;

- communicating the information from the port controller to a switch fabric;

- communicating the information from the switch fabric to a switch device driver within an operating system;

- communicating the information from the switch device driver to a Forwarding Database Distribution Library (FDDL);

- communicating the information from the FDDL to a first protocol client;

- receiving additional information at a port controller in a second protocol from a first node machine;

- communicating the additional information from the port controller to a switch fabric;

- communicating the additional information from the switch fabric to a switch device driver within an operating system;

- communicating the additional information from the switch device driver to a Forwarding Database Distribution Library (FDDL);

- communicating the additional information from the FDDL to a second protocol client;

- defining a switch services API for communication between the switch device driver; and

- defining an FDDL API for communication between the first protocol client and the FDDL.

Claim 60 (previously presented) A computer-readable medium having stored thereon computer executable instructions for performing the steps comprising:



receiving information at a port controller in a first protocol from a first node machine;

communicating the information from the port controller to a switch fabric;

communicating the information from the switch fabric to a switch device driver within an operating system;

communicating the information from the switch device driver to a Forwarding Database Distribution Library (FDDL);

communicating the information from the FDDL to a first protocol client;

receiving additional information at a port controller in a second protocol from a first node machine;

communicating the additional information from the port controller to a switch fabric;

communicating the additional information from the switch fabric to a switch device driver within an operating system;

communicating the additional information from the switch device driver to a Forwarding Database Distribution Library (FDDL);

communicating the additional information from the FDDL to a second protocol client;

receiving the information from the switch device driver at an FDDL base within the FDDL;

passing the information from the FDDL base to a first protocol FDDL tower within the FDDL; and

sending the information from the first protocol FDDL tower to the first protocol client.

Claims 61-64 (cancelled)

Claim 65 (previously presented) A network system comprising:

a network switch comprising a CPU, a memory system having circuitry operable to attach to the CPU, a switch fabric system having circuitry operable to attach to the CPU a port controller having circuitry operable to attach to the switch fabric system, a software application operable to execute on the CPU, a Forwarding

Database Distribution Library (FDDL) system operable to execute on the CPU, and a switch device driver operable to execute on the CPU, wherein the software application is operable to communicate with the FDDL system, the FDDL system is operable to communicate with the switch device driver, and the switch device driver is operable to communicate with the switch fabric;

- a backbone;

- a workstation; and

- a second software application operable to execute on the CPU, wherein the second software application communicates with the FDDL system;

- wherein the workstation is logically connected to the backbone,

- wherein the backbone is logically connected to the port controller of the network switch; and

- wherein the FDDL system comprises:

- a base FDDL system;

- a software application tower FDDL system; and

- a second software application tower FDDL system

- wherein the base FDDL system communicates with the switch device driver, the software application communicates with the software application tower FDDL system, the second software application communicates with the second software application tower FDDL system, and the base FDDL system communicates with the software application tower FDDL system and the second software application tower FDDL system.

Claims 66-67 (cancelled)

Claim 68 (previously presented) A network system comprising:

- a network switch comprising a CPU, a memory system having circuitry operable to attach to the CPU, a switch fabric system having circuitry operable to attach to the CPU a port controller having circuitry operable to attach to the switch fabric system, a software application operable to execute on the CPU, a Forwarding Database Distribution Library (FDDL) system operable to execute on the CPU, and a switch device driver operable to execute on the CPU, wherein the software

application is operable to communicate with the FDDL system, the FDDL system is operable to communicate with the switch device driver, and the switch device driver is operable to communicate with the switch fabric;

- a backbone;

- a workstation,

- an independent software application operable to execute on the CPU;

- an independent software application shim operable to execute on the CPU;

- wherein the workstation is logically connected to the backbone,

- wherein the backbone is logically connected to the port controller of the network switch;

- wherein the independent software application communicates with the independent software application shim and the independent software application shim communicates with the switch device driver; and

- wherein the FDDL system comprises:

  - a base FDDL system;

  - a software application tower FDDL system; and

  - a second software application tower FDDL system

- wherein the base FDDL system communicates with the switch device driver, the software application communicates with the software application tower FDDL system, the second software application communicates with the second software application tower FDDL system, and the base FDDL system communicates with the software application tower FDDL system and the second software application tower FDDL system.